

May 30, 2012

Communications Usage Trend Survey in 2011 Compiled

The Ministry of Internal Affairs and Communications (MIC) has compiled its Communications Usage Trend Survey as a result of the survey on the use of telecommunications services in households and enterprises as of the end of 2011.

For the highlights and outlines of the survey, please see Attachment 1 and Attachment 2, respectively.

Details of the survey will be posted on the website for the MIC's Information & Communications Statistics Database.

(URL: http://www.soumu.go.jp/johotsusintokei/statistics/statistics05.html)

[Survey Outline]

Since 1990, the Communications Usage Trend Survey has been conducted annually with households (households and household members) and enterprises, as general statistics in accordance with the Statistics Act (Act No. 53 of 2007). (The survey of businesses has been conducted since 1993, except for 1994. The survey of household members started in 2001.) Since 2010, the survey of households has been conducted by prefecture.

	Households	Businesses					
Survey period	January to February 2012						
Survey area	Nationwide						
Scope of attributes/ Level of survey	Households headed by someone aged 20 or older (as of April 1, 2011) and household members	Businesses with 100 or more regular employees (excluding the agriculture, forestry, fisheries, mining, and public services industries)					
Number of samples [Effective mails]	40,592 [40,042]	5,140 [4,602]					
Effective responses [%]	16,580 households (47,158 persons) [41.3%]	1,905 enterprises [41.4%]					
Survey items	Use of telecommunication services, ownership of telecommunication related devices, etc.						
Survey method	Mail survey						

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Attachment 1

Highlights of Communications Usage Trend Survey in 2011

* Items indicated with "(Households)" and "(Businesses)" in the titles are based on the results of the survey of households and that of businesses, respectively, and others are based on the results of the survey of household members (individuals).

1. Internet Diffusion Rate (relative to population)

Overall, the rate of Internet use with computers and mobile phones was high, and the rate of their use as terminals mainly at home and outside home exceeded 70%.



* Indicating the rate of those who have used the Internet by such terminals over the course of the year 2011 (except for those who did not answer).

* Indicating the rate of those who have mainly used such terminals to those who have used the Internet over the course of the year 2011 (except for those who did not answer).

2. Internet Use Trend of Mobile Phone and Smartphone Users (1)

Mobile phones were used to connect to the Internet among a wide range of ages. As for smartphones, there was a huge generation gap.



* Indicating the rate of respondents who have used the Internet with such terminals over the past year (except for those who did not answer).

2. Internet Use Trend of Mobile Phone and Smartphone Users (2)

Smartphone users have used various functions and services of the Internet more actively than mobile phone users.



2. Internet Use Trend of Mobile Phone and Smartphone Users (3)

Smartphone users have used electronic commerce outside home generally more actively than mobile phone users.



Ceiling Amount for Purchase of merchandise via the Internet Outside Home

The average ceiling amount for purchase of merchandise via the Internet used with a smartphone was about 2,500 yen higher than that with a conventional mobile phone.



*1 Indicating the rate of amount of individuals aged 15 and up who have purchased merchandise via the Internet outside home and the average amount (except for those who did not answer).

3. Possession of Main ICT Equipment per Household (Households)

Use Rate of In-home Wireless LAN by Terminal Possession of Main ICT Equipment per Household Possessed (Households) Among saturated diffusion of ICT equipment overall, the smartphone possession rate The use rate of households possessing a showed a pronounced increase. smartphone and tablet terminal exceeded (%) 100.0 Mobile phone/PHS 60%. (including smartphone) 90.0 80.0 Fixed-line telephone Total 70.0 Computer 39.3 52.2 60.0 8.5 50.0FAX TV set capable of 40.0 Smartphone (re-posted) connecting to the 50.3 30.0 Internet Home-use game console 9.9 capable of connecting to 20.0 the Internet 10.0 Tablet terminal * Excluding those who 60.8 0.0 did not answer YE 2011 YE 2008 YE 2009 YE 2010 YE 2007 Other intelligent (n=3,640) (n = 4,515) (n = 4.547)(n = 22,271)(n = 16.530)8.8 appliances capable Mobile phone/PHS 95.0 95.6 96.3 93.2 94.5 of connecting to the (including smartphone) Internet - - Fixed-line telephone 91.2 83.8 90.7 90.9 85.8 Computer 85.0 85.9 87.2 83.4 77.4 71.5 • FAX 55.4 53.5 57.1 43.8 45.0 TV set capable of 11.7 15.2 23.2 26.8 33.6 connecting to the Internet Home-use game console capable of connecting to the 15.2 20.8 25.9 23.3 24.5 20% 0% 40% 60% Internet Tablet terminal 7.2 8.5 Have used it Other intelligent appliances capable of connecting to the 4.3 5.5 7.6 3.5 6.2 Plan to introduce it Internet Smartphone (re-posted) 9.7 29.3

* Number of "Mobile phone/PHS (including smartphones)" has included those of smartphones since the end of 2010. The possession rate excluding smartphones at the end of 2011 was 89.4.

Households possessing a computer 39.8 Households possessing a smartphone 30.3 Households possessing a tablet terminal 23.6 4.9 80% 100% □ Have no plans to introduce it

* Excluding those who did not answer

4. Internet Use by Age Group (1) Internet Diffusion Rate

Although the rate among people aged 60 and up was almost on an upward trend, it was still low compared with other age groups. While the rate among people aged 13 – 49 exceeded 90%, the rate among people 60 and up substantially declined.



□ YE 2009 (n=13,928)

) □YE 2010 (n=59,346)

■YE 2011 (n=41,900)

(Note) "Total" refers to the population aged 6 and above. Tabulated excluding "those who did not answer."

4. Internet Use by Age Group (2) Use of Electronic Commerce

As for purchase of merchandise via the Internet, there was a huge gap in the use rate between people aged 49 and below and those aged 50 and up.



5. Data Communication Rate Plans

Situation of Data Communication Rate Plans

More than 50% of smartphone subscribers have a contract for a flat-rate fee plan (one-stage (flat))



■ Flat-rate fee plan (two-staged) ■ Flat-rate fee plan (one-staged (flat)) □ Other rate plan (metered-rate, etc.) * Target: Subscribers of mobile phones, smartphones, and tablet

(Excluding those who did not answer)

Intention to Review Rate System

70% of subscribers with a contract for a flat-rate fee plan continued to prefer the current rate system centered on flat-rate fee plans.



■ Prefer also a metered-rate plan to maintain communication speed

Have no particular preference

* Target: Subscribers of mobile phones, smartphones, and tablet terminals

(Excluding those who did not answer)

6. Use of Cloud Services (Businesses)







7. Security-threatening on Intranet and Inter-company Network (Businesses) 10

Security-threatening Incidents at Companies

The rate of companies which have been infected with a virus or have experienced a security-threatening incident substantially declined to 38.8% in the 2011 survey from 62.4% in the 2009 survey.



Companies' Implementation of Security Measures

The response of taking some security measures has hovered at a high level of 97% from the 2009 survey to the 2011 survey.



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(1) Number of Internet Users and Diffusion Rate (relative to population) (Individuals)

The number of people who used the Internet over the course of the year 2011 increased by 1.48 million from the previous year, and is now estimated to be 96.10 million. The diffusion rate (relative to population) was 79.1%.



Trends in the Number of Internet Users & Diffusion Rate (relative to population) (Individuals)

Notes: 1. The range of ages subject to this survey was six and up.

2. The number of Internet users (estimated) refers to the number of users estimated from the results of this survey of people aged six and up who had used the Internet during the preceding 12 months for the survey. All types of devices are assumed for connecting to the Internet, including computers, mobile phones, personal handy-phone system (PHS) devices, smartphones, tablet terminals, and game consoles (regardless of ownership); all purposes are assumed, including personal use, use for work, and use at school.

3. The number of Internet users is calculated by multiplying the estimated population aged six and up each year (estimated from census returns and life tables) by the Internet usage rate for people aged six and up obtained from this survey.

4. The numbers are calculated excluding those who did not answer. (The same applies to the results in this document hereinafter.)

(2) Internet Usage Rate (Individuals)

With regard to trends in Internet usage by age group, the rate among people aged 13–49 exceeded 90%. Although the rate among people aged 60 and up was almost on an upward trend, it was still low compared with other age groups.

By annual household income, the usage rate was higher for higher income levels.

By usage frequency, about 80% of smartphone users (outside home) use the Internet "At least once a day."

By prefecture, the usage rate was higher mainly in prefectures with large cities. The following 9 prefectures had above-average usage rates: Hokkaido, Saitama, Chiba, Tokyo, Kanagawa, Aichi, Kyoto, Osaka and Nara.

Note: The form of survey items targeted at individuals was changed to asking questions separately concerning "at home" and "outside home" from the 2011 survey.



Trends in Internet Usage Rate by Age Group (Individuals)

80% 74.5 69.3 66.4 60.9 62.3 60% 53. 40% 33.8 24.8 20% 9.0 0% 20-29 30-39 50-59 Total: 6 and up 6-12 13-19 40-49 60-64 65-69 70-79 80 and up

Internet Usage Rate By Annual Household Income (Individuals) (End of 2011)



Internet Usage Frequency By At Home or Outside Home (End of 2011)

	0%	20%	40%	60%	80%	100%	
At home (n=26,342)		57.0		25	.9	6.0	
Outside home (n=19,219)		59.	1	19.5	8.7 12	.7	
□ At le	ast once a day		⊠A	t least once a week ((not every day)		
□ At le	ast once a month (n	ot every week)		Less frequently than the above (at least once a year)			

(This was targeted at those who have used the Internet at home or outside home.)

Internet Usage Frequency By At Home or Outside Home and Main Terminal (End of 2011)



(This was targeted at those who have used the Internet at home or outside home by equipment mainly used.)

Internet Usage Rate By Prefecture (Individuals) (End of 2011)



Internet Usage Rate (Individuals)

Prefectu	re (n)	Usage Rate (%)	Prefectu	Usage Rate (%)	
Hokkaido	(811)	82.7	Shiga	(884)	79.0
Aomori	(824)	65.7	Kyoto	(771)	79.7
Iwate	(1,086)	70.4	Osaka	(783)	82.0
Miyagi	(897)	78.8	Hyogo	(989)	78.6
Akita	(1,082)	68.0	Nara	(1,019)	79.5
Yamagata	(1,004)	71.0	Wakayama	(777)	76.3
Fukushima	(909)	73.2	Tottori	(953)	72.9
Ibaraki	(910)	75.1	Shimane	(909)	72.5
Tochigi	(957)	75.3	Okayama	(1,256)	76.3
Gunma	(968)	74.3	Hiroshima	(860)	75.4
Saitama	(850)	82.4	Yamaguchi	(711)	72.1
Chiba	(796)	81.4	Tokushima	(726)	76.5
Tokyo	(779)	84.1	Kagawa	(893)	74.6
Kanagawa	(746)	87.5	Ehime	(637)	73.4
Niigata	(1,165)	71.2	Kochi	(712)	68.7
Toyama	(1,385)	72.1	Fukuoka	(784)	78.8
Ishikawa	(1,066)	75.8	Saga	(853)	74.8
Fukui	(981)	76.9	Nagasaki	(707)	72.3
Yamanashi	(944)	74.2	Kumamoto	(753)	73.2
Nagano	(1,095)	73.9	Oita	(834)	72.5
Gifu	(1,194)	74.0	Miyazaki	(717)	68.3
Shizuoka	(938)	77.6	Kagoshima	(607)	75.7
Aichi	(849)	83.3	Okinawa	(584)	76.8
Mie	(945)	77.8		. ,	•

Note: Shaded prefectures are those with usage rates higher than the national average (79.1%).

(3) Internet Usage Rate By Terminal (Individuals)

With regard to internet usage by terminal over the course of the year 2011, the usage rate of "Computer at home" was highest at 62.6%, followed by "Mobile phone" (52.1%), and "Computer outside home" (39.3%), while the rate of "Smartphone" was 16.2%.

Further, in terms of internet usage by main terminal by age group, "Computer at home" was used by about 80% of people aged 13–49. "Mobile phone" was used about 60% to 70% of people aged 13–59. As for people aged 60 and up, the usage rate of "Mobile phone" (33.2%) was higher than that of "Computer at home" (31.1%). "Smartphone" was particularly high among people aged 20 – 29, with the rate at 44.9%.



Main Terminal Used to Connect to the Internet At Home or Outside Home (End of 2011)



⁽This was targeted to those who have used the Internet at home (n=28,170))

Outside Home





(4) Internet Usage Rate (Businesses)

The rate of Internet usage by businesses as a whole was 98.8%.

Trends in the internet usage rate remained flat, at around 99%, showing that internet usage at businesses sufficiently diffused.



Trends in Internet Usage Rate (Businesses)

(5) Types of Internet Connection (Households)

The percentage of households using broadband lines as Internet connections for computers at home, TV sets capable of connecting to the Internet, etc. increased by 4.0 percentage points from the previous year, to 81.9%. Of households using broadband lines, the usage rate of optical fibers scored 52.3%.

Trends in Internet Connection Used for Computers At Home, TV Set Capable of Connecting to the Internet, etc. (Households) (Multiple choices allowed)



- Notes: 1. The households subject to this survey were those using "computers at home," "tablet terminals," "TV sets capable of connecting to the Internet" and "other equipment" to access the Internet.
 - 2. "Broadband lines" consist of DSL, CATV lines, optical fibers, fixed wireless lines (FWA), BWA access services, 3rd-generation mobile phone lines (limited to cases in which a computer is connected to a mobile phone), and LTE.
 - In addition to the types of "narrow-band lines" shown above, there are types using mobile phone lines (except for 3rd-generation mobile phone lines and LTE) and PHS lines.

(6) Usage of In-home Wireless LAN (Households)

With regard to the usage of in-house wireless LAN, the usage rate of total households accounted for 39.3% and that of households using computers, etc. to connect to the Internet at home accounted for 50.3%, resulting in more than half of all households which have an Internet connection using in-home wireless LAN.

By line of internet connection, households adopting a broadband line (such as DSL and optical fiber) connection accounted for 58.5% and those adopting a narrow-band line (such as a telephone line or ISDN line) connection accounted for 48.0%, resulting in more than half of households adopting a broadband line connection using in-home wireless LAN.

By terminal possessed, more than 60% of households with smartphones and tablet terminals have used in-home wireless LAN.



Notes: 1. In-home wireless LAN includes use in conjunction with wired LAN.

Broadband line (such as DSL and optical fiber) connection includes use in conjunction with narrow-band line connection.
Narrow-band line (such as telephone line and ISDN line) connection includes use in conjunction with broadband line connection.

(7) Types of Internet Connection (Businesses)

The percentage of businesses using broadband lines as Internet connections for businesses increased by 3.7 percentage points from the previous year, to 83.4%. The usage rate of optical fibers increased by 4.7 percentage points to 78.9%, indicating that the diffusion of optical broadband connection for businesses is steadily progressing.

Types of Internet Connection (Businesses) (Multiple choices allowed)



(8) Diffusion of Main ICT Equipment (Households)

With regard to the diffusion situation of ICT equipment by equipment, the diffusion rate for households of "Mobile phone/PHS" and "Computer" accounted for 94.5% and 77.4%, respectively. The rate of "Smartphone," the number of which was included in "Mobile phone/PHS," was 29.3% (increased by 19.6 percentage points from the previous year), showing a rapid diffusion.





Note 1: "Mobile phone/PHS" has included personal digital assistants (PDAs) since the end of 2009 and smartphones as an included number since the end of 2010. The possession rate excluding smartphones was 89.4%. Note 2: "Smartphone" was re-posted in "Mobile phone/PHS."

2. Trends in the Use of ICT by Individuals

(1) Purposes of Internet Usage

In terms of purposes for using the Internet at home, "Sending/receiving email" was the most common, at 70.1%, followed by "Viewing a website or a blog (weblog)" (63.6%) and "Purchase or trade of merchandise or services" (60.1%).

Using the Internet outside home showed that those who mainly use smartphones were generally more active in using various functions or services of the Internet than those who mainly use mobile phones, especially indicating a great difference in purchase or trade of merchandise or services.

By generation, it showed that people aged 49 and below were more active in using various functions or services of the Internet than those aged 50 and up.

Functions or Services of Internet Usage At Home or Outside Home (Individuals) (Multiple choices allowed) (End of 2011)



Note: Indicating the ratio of users by function or service to the Internet users at home or outside home.

Functions or Services of Internet Usage by Main Terminal (Individuals) (Multiple choices allowed) (End of 2011)



Note: "Computer at home" was targeted at those who have mainly used a computer to connect to the Internet at home. "Mobile phone (outside home)" and "Smartphone (outside home)" were targeted at those who have mainly used such equipment to connect to the Internet outside home. This indicated the ratio of number of users by function or service to the total number of each target.

Functions or Service of Internet Usage (Adults) (Multiple choices allowed) (End of 2011)



Note: Indicating the rate of those who have used such functions or services to Internet users of such ages.

(2) Merchandise and Services Purchased or Traded via the Internet

With regard to usage at home, it showed that those who mainly use smartphones were more active in purchasing merchandise or services via the Internet compared with those who mainly use mobile phones. It also showed that those who mainly use smartphones were generally more active in purchasing digital content, but this difference was not as large. By age group, regarding the purchasing of merchandise or services, people aged 49 and below and those aged 50 and up showed different tendencies.

Merchandise and Services Purchased via the Internet by Main Terminal (Individuals) (Multiple choices allowed) (End of 2011)



Note: "Computer at home" was targeted at those who have mainly used a computer to connect to the Internet at home. "Mobile phone (outside home)" and "Smartphone (outside home)" were targeted at those who have mainly used such equipment to connect to the Internet outside home. This indicated the ratio of the number of users by function or service to the total number of each target.

Merchandise and Services Purchased via the Internet by Age Group (Adults) (Multiple choices allowed) (End of 2011)



Note: Indicating the ratio of the number of those who have purchased such items to the total number of Internet users of such ages.

(3) Payment methods for purchase via the Internet

In terms of payment methods for purchases via the Internet, "Credit card payment" was highest at 57.7%, followed by "Cash on delivery of merchandise" (47.6%), "Payment at a convenience store" (33.9%) and "Payment through a bank or post office ATM/teller" (31.2%).

Payment Methods for Purchase via the Internet (Multiple choices allowed) (End of 2011)



(4) Ceiling Amount for Purchase of Merchandise via the Internet

With regard to the average ceiling amount per purchase of merchandise among people aged 15 and up who have purchased merchandise or services via the Internet, the amount for total purchase at home was 22,361 yen. In terms of purchase at home by terminal mainly used, the amount for a computer at home was largest, at 23,858 yen, followed by a smartphone, at 19,410 yen, and a mobile phone, at 13,054 yen.

The amount for total purchase outside home posted 20,127 yen, and by terminal mainly used, the amount for a computer outside home was largest, at 25,084 yen, followed by a smartphone, at 15,533 yen, and a mobile phone, at 13,054 yen.

Average Ceiling Amount for Purchase via the Internet At Home or Outside Home (End of 2011)



(This was targeted at people aged 15 and up who have purchased merchandise via the Internet at home)



(This was targeted at people aged 15 and up who have purchased merchandise via the Internet outside home)



Average Ceiling Amount for Purchase via the Internet At Home (End of 2011)

Average Ceiling Amount for Purchase via the Internet Outside Home (End of 2011)



(5) Using Images/Video and Voice Recording Content

With regard to using images/video and voice recording content, "Posting-type video sharing service (on-demand)" was highest, at 73.7%, followed by "Broadcast program distribution service (on-demand)" (28.4%).

Looking at terminals used, computers were used the most, at home and outside home, followed by smartphones.

Looking at purposes of use, "To watch videos, etc. of favorite artists, etc." was highest, at 59.8%, followed by "to watch topical videos/programs" (44.3%).

Services Used of Images/Video and Voice Recording Content (Multiple choices allowed) (End of 2011)



Usage Frequency of Images/Video and Voice Recording Content (End of 2011)



Terminals Used of Images/Video and Voice Recording Content (Multiple choices allowed for total) (End of 2011)



Purposes of Use of Images/Video and Voice Recording Content (Multiple choices allowed) (End of 2011)



(6) Individual Use of Social Media

With regard to the usage rate of social media by terminal used to access the Internet, those who have used tablet terminals had a high rate of using social media. Especially, the rate of "Using video posting/sharing site" exceeded 50% at 58.0%.

Looking at purposes of use of social media, "To seek information about things I want to know" was highest, at 64.4%, followed by "To communicate with acquaintances I've known for a long time" (50.1%) and "To seek people who have the same hobbies/tastes" (25.1%).

0% 10% 20% 30% 40% 50% 60% 5.3 Viewing and posting a microblog 1.1 10.8 15.4 12.1 Participating in a SNS 25.4 33.0 32.8 Using video posting/sharing site 46.3 58.0 ■ Computer ■Mobile phone (including PHS/PDA) □ Smartphone Tablet terminal (n=24,906) (n=19,628) (n=5,231) (n=1,202)

Usage Rate of Social Media by Terminal Used (End of 2011)

Purposes of Use of Social Media (End of 2011)



(7) Data Communication Rate Plans

With regard to data communication rate plans among subscribers of mobile phones, smartphones, and tablet terminals, about 80% have a contract for a flat-rate fee plan, such as "Flat-rate fee plan (two-staged)" at 45.6% (excluding those who did not answer, the same applies hereinafter) and "Flat-rate fee plan (one-staged (flat))" at 36.4%.

In terms of the situation of reaching the ceiling amount of monthly payment among those who contract a flat-rate fee plan (two-staged), about 60% reached the ceiling amount of monthly payment, such as "Almost every month," at 34.8%, and "Every month," at 23.3%.

In terms of the movement to review the current rate system, many people tended to prefer the rate system centered on flat-rate fee plans, showing "Prefer the current rate system centered on flat-rate fee plans with the ceiling though there is a possibility of slowing communication speed" at 70.1%, "Prefer also a metered-rate plan to maintain communication speed" at 8.6% and "No particular preference" at 21.3%.

By data communication rate plan, slightly over 75% of subscribers with a contract for a flat-rate fee plan, and by situation of reaching the ceiling amount of monthly payment, slightly over 80% of those who responded with "Reach the ceiling every month," prefer the rate system centered on flat-rate fee plans, respectively.



(Note) Target: Subscribers of mobile phones, smartphones, and tablet terminals

Situation of Reaching the Ceiling Amount (End of 2011)



(Note) Target: Subscribers of mobile phones, smartphones, and tablet terminals

Intention to Review the Rate System (End of 2011)



Prefer the current rate system centered on flat-rate fee plans
Prefer also a metered-rate plan to maintain communication speed
No particular preference

(Note) Target: Subscribers of mobile phones, smartphones, and tablet terminals

Mobile Phone Subscribers



Prefer the current rate system centered on flat-rate fee plans
Prefer also a metered-rate plan to maintain communication speed
No particular preference



Prefer the current rate system centered on flat-rate fee plans
Prefer also a metered-rate plan to maintain communication speed
No particular preference

3. Trends in the Use of ICT in Businesses

(1) Building a Company Communication Network

With regard to the situation of building a company communication network (intranet and inter-company network) targeted to all businesses, 87.5% of companies have built a company communication network.

In terms of communication service mainly used at a company communication network, "Internet VPN" was highest, at 54.0%, followed by "IP-VPN" (41.9%) and "Wide-area Ethernet" (34.2%).



Building a Company Communication Network (End of 2011)

Communication Service Mainly Used for Company Communication Network (Multiple choices allowed) (End of 2011)



(2) Utilization of Social Media Services in Businesses

The percentage of businesses using at least a part of a social media service was 12.4%. BY business category, "Services & other" was highest, at 18.2%, followed by "Wholesale/Retail" (11.7%) and "Finance/Insurance" (10.0%).

In terms of purposes or uses among businesses responding that they use social media services, "Announcement, advertisement, or display of products and events" was highest, at 53.4%, followed by "Periodic dissemination of information" (40.8%) and "Corporate profiling; recruiting" (39.1%).

Presence or Absence of Utilization of Social Media Services in Businesses (End of 2011)



Purposes or Uses of Social Media Services in Businesses (Multiple choices allowed) (End of 2011)



(3) Use of E-commerce

The percentage of businesses using e-commerce (procurement/sales via the Internet) was 44.5%. For the usage rate by business category, "Finance/Insurance" was highest at 59.1%, followed by "Wholesale/Retail" (52.3%) and "Manufacturing" (46.1%).

Looking at internet selling models among businesses selling certain items via the Internet, "Online shop (company's own site)" was highest, at 69.9%, followed by "Online shop (opening at an online mall)" (34.2%).

Use of E-commerce by Business Category (Multiple choices allowed) (End of 2011)





Internet Selling Models (Multiple choices allowed) (End of 2011)



(4) Advertising on the Internet (Businesses)

The percentage of businesses using the Internet to advertise was 25.6%. For the usage rate by business category, "Finance/Insurance" was highest, at 50.8%, followed by "Services & other" (33.2%) and "Wholesale/Retail" (28.5%).

Regarding types of advertising, "Banner ads" were highest, at 42.4%, followed by "Mail magazines" (39.9%) and "Text ads" (32.1%).



Usage Rate of Advertising on the Internet (End of 2011)

Types of Advertising on the Internet (Multiple choices allowed) (End of 2011)



Notes: 1. Text ad: Ad using text only.

- 2. Banner ad: Graphical web advertising that links to another website when clicked.
- 3. Rich media ad: Ad using voice and images, e.g., with a display moved around by the movement of the mouse, or with a streaming-based motion picture.
- 4. Contents matching ad: Ad that analyzes Web content or key words and displays materials related to the contents.

(5) Status of Implementing ICT-related Tools^(note) Based on Wireless Communication Technology

The implementing rate of services, systems and tools using ICT-related tools based on wireless communication technology was 44.4%. In terms of the usage rate of each tool, "Contactless smart cards" was highest, at 25.7%, followed by "Devices equipped with network connection (e.g., network-connected cameras and network-connected sensors)" (25.3%).

In terms of the implementing rate of each ICT-related tool by business category, "Electronic tags" was highest in "Manufacturing," at 12.0%, and "Contactless smart cards" and "Devices equipped with network connection (e.g., network-connected cameras and network-connected sensors)" were highest in "Finance/Insurance," at 56.4% and 36.8%, respectively. "Locating devices (mobile phones, etc.) based on GPS" was highest in "Transportation," at 43.7%.

(Note) In this survey, the term "ICT-related tools" generally means business tools equipped with next-generation communication features, such as electronic tags (RFID tags), contactless smart cards, devices equipped with network connection (e.g., network-connected cameras and network-connected sensors), and locating devices (mobile phones, etc.) based on GPS.

Status of Implementing Services and Systems Using ICT-related Tools (End of 2011)

									(n=1,815)	
■We	have introduce	d them. ■V	Ne haven't, bu	ut we plan to i	introduce then	n in the future.	□ We hav	en't, and we h	ave no plans	to do so.
		44.4			9.8			45.8		
L					1		1	1	1	
0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%

Implementing Rate by ICT-related Tool by Business Category (End of 2011)



(6) Use of Cloud Computing Services

The percentage of businesses using at least a part of a cloud computing service (hereinafter referred to as a "cloud service") was 21.6%, which is 7.5 percentage points more than the 14.1% rate at the end of 2010. By scale in terms of capital stocks, the usage rate was nearly proportional to the scale of capital stock, and the usage rate in businesses capitalized at 5 billion yen or more scored 44.4%.

As for the reasons for not using cloud services, "There is no need" was highest, at 42.3%, followed by "Concern about security" (33.7%) and "It is costly to modify the existing system to introduce a cloud service" (23.4%).











Services Used among Businesses Using Cloud Services (Multiple choices allowed) (End of 2011)

Reasons for Not Using Cloud Services (Multiple choices allowed) (End of 2011)



(7) Teleworking

The percentage of businesses that have introduced teleworking was 9.7%. By scale in terms of capital stocks, the introduction rate of teleworking was nearly proportional to the scale of capital stock, and the introduction rate in businesses capitalized at 5 billion yen or more scored 24.7%.

Regarding the percentage of employees using teleworking in businesses, "Less than 5%" was highest, at 65.4%, followed by "10% to less than 30%" (13.3%) and "5% to less than 10%" (9.1%).

For main purposes of introducing teleworking, "Improvement of efficiency (productivity) of routine work" was highest, at 50.0%, followed by "Reduction of commuting time" (41.6%) and "Preparation for business continuity in emergency situations (earthquakes, new strains of influenza, etc.)" (28.4%).

Regarding the effectiveness of introducing teleworking in businesses, the answers of "Great effects" and "Some effects" totaled 80.0%, indicating that the businesses saw a positive effect.



Introduction Rate by Scale of Capital Stock (End of 2011)



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Percentage of Employees Using Teleworking (End of 2011)



Purpose of Introducing Teleworking (Multiple choices allowed) (End of 2011)



Effectiveness of Teleworking (End of 2011)



4. State of Coping with Safety and Security

(1) Implementation of Security Measures (Households)

The ratio of households taking security measures to households using the Internet was 87.0%. As for the details of the measures among households taking security measures, "Installed an anti-virus program" was highest, at 59.0%, followed by "Do not open mails, attachments, or HTML files from people I don't know" (37.5%), and "Subscribed to an anti-virus service offered by the provider, etc." (27.9%).



Implementation of Security Measures (Multiple choices allowed)

(2) Concerns about Internet Usage (Households)

Of households using the Internet, those "a little concerned" and those "concerned" totaled 48.1%, indicating that approximately half of all households are concerned.

As for details of their concerns among households concerned about using the Internet, "Virus infection" was highest at 72.8%, followed by "Protection of personal information" (72.6%) and "Not sure how far I should go as to security measures" (61.6%), suggesting that they are concerned about information security.



Concerned or Not Concerned about Internet Usage (Households)

Concerns about Internet Usage (Households) (Multiple choices allowed)



(3) Security-threats to Company Communication Network and Security Measures (Businesses)

With regard to security-threatening incidents experienced in using telecommunication networks during the past 12 months for all businesses, businesses responding with "have experienced some security-threatening incidents" accounted for 40.5%. By business category, businesses responding with "have experienced some security-threatening incidents" accounted for 52.8% in construction and 28.9% in transportation. By scale in terms of capital stocks, businesses responding with "have experienced some security-threatening incidents" increased in proportion to the capital amount.

In terms of major security-threatening incidents experienced, "Have been infected with a virus or have encountered a virus" was highest at 38.8%.

The percentage of businesses taking some security measures among those using in-house LANs, etc. was 97.0%. For the implementation rate of security measures by business category, the rate was high in every category, and particularly high in "Finance/Insurance" at 100.0%.

In terms of major security measures taken, "Installing an antivirus program on terminals such as computers (OS, software, etc.)" was highest, at 84.1%, followed by "Installing an antivirus program on the servers" (63.8%) and "Controlling access by ID and password" (55.0%).

Security-threatening Incidents Experienced in Using Telecommunication Networks during Past 12 months (Businesses)

Implementation of Security Measures (Businesses) (Multiple choices allowed)



Security-threatening Incidents Experienced in Using Telecommunication Networks during Past 12 Months (By business category / End of 2011)



Security-threatening Incidents Experienced in Using Telecommunication Networks during Past 12 Months (By scale of capital stock / End of 2011)



Implementation of Measures to Data Security (By business category / End of 2011)



Implementation of Measures to Data Security (By scale of capital stock / End of 2011)



(4) Problems in Using the Internet and In-house LANs (Businesses)

Regarding problems in using the Internet and in-house LANs, "Concerns about virus infection" was most common, at 41.4%, followed by "Lack of staff for operation, management, and maintenance" (40.3%) and "Difficulty in establishing security measures" (39.5%).

Problems in Using the Internet and In-house LANs (Businesses) (Multiple choices allowed) (End of 2011)



(5) Implementation of Measures to Protect Personal Information (Businesses)

The percentage of businesses taking some measures to protect personal information scored 79.1%. Main measures taken were "Provide in-house training," at 47.2%, followed by "Appoint an officer for personal information protection" (36.0%) and "Establish a privacy policy" (28.0%).

Implementation of Measures to Protect Personal Information (Businesses) (Multiple choices allowed) (End of 2011)

